

SYM-21B

WHAT IS CLAIMED IS:

1. A method for providing location identification information, said location information corresponding to a location of a mobile asset in a communication network, said method comprising:
  - 5 waiting a predetermined period of time;
  - detecting the presence of radio frequency energy on a first channel; and
  - if said radio frequency energy is substantially less than a predetermined threshold,
  - 10 transmitting said location identification information.
2. The method of claim 1 wherein said transmitting comprises transmitting an 802.11 data packet.
3. The method of claim 1 further comprising, if said radio frequency energy is not substantially less than said threshold:
  - 5 detecting the presence of radio frequency energy on a second channel; and
  - if radio frequency energy on said second channel is substantially less than a predetermined threshold, transmitting said location identification information on said second channel.
4. The method of claim 1 further comprising, if said radio frequency energy is not substantially less than said threshold:

waiting until said radio frequency  
5 energy is substantially less than said threshold; and  
transmitting said location  
identification information.

5. The method of claim 1 wherein said  
detecting comprises using an energy detector.

6. The method of claim 1 wherein said  
transmitting comprises transmitting asset  
identification information.

7. The method of claim 1 wherein said  
transmitting comprises transmitting at least one  
information sequence selected for time-of-arrival  
estimation.

8. The method of claim 1 further comprising  
receiving a communication sequence from a network  
transmitter.

9. The method of claim 1 further comprising  
receiving a wake-up signal from a transmitter in said  
network, wherein said detecting is initiated when said  
wake-up signal is received.

10. The method of claim 9 wherein said  
detecting is initiated only when said wake-up signal is  
received.

11. A method for providing location  
identification information, said location information

corresponding to a location of a mobile asset in a communication network, said method comprising:

- 5                   receiving a wake-up signal from a transmitter in said network; and  
                  transmitting said location identification information.

12. The method of claim 11 wherein said transmitting comprises transmitting an 802.11 data packet.

13. The method of 11 wherein said transmitting comprises transmitting asset identification information.

14. The method of claim 11 wherein said transmitting comprises transmitting at least one information sequence selected for time-of-arrival estimation.

15. A system for providing location identification information, said location information corresponding to a location of a mobile asset in a communication network, said system comprising:

- 5                   means for delaying a predetermined period of time;  
                  means for detecting radio frequency energy on a first channel; and  
                  means for transmitting said location  
10 identification information on said first channel.

16. The system of claim 15 wherein said means for transmitting is configured to transmit an 802.11 data packet.

17. The system of claim 15 further comprising:

means for detecting the presence of radio frequency energy on a second channel; and

5 means for transmitting said location identification information on said second channel.

18. The system of claim 15 wherein said means for detecting comprises an energy detector.

19. The system of claim 15 wherein said means for transmitting is configured to transmit asset identification information.

20. The system of claim 15 wherein said means for transmitting is configured to transmit at least one information sequence selected for time-of-arrival estimation.

21. The system of claim 15 further comprising receiving a communication sequence from a network transmitter.

22. The system of claim 15 further comprising:

means for receiving a wake-up signal from a transmitter in said network; and

5 means for initiating transmission of said location identification information in response to reception of said wake-up signal.

23. The system of claim 15 wherein said means for transmitting is configured to transmit at least one information sequence selected for time-of-arrival estimation.

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